

Title (en)

Multilayer antireflective coating with a graded base layer

Title (de)

Mehrschicht-Antirefleksionsüberzug mit gradierter Basisschicht

Title (fr)

Revêtement antiréfléchissant à multicouche à couche de base graduelle

Publication

EP 0721112 A3 19980715 (EN)

Application

EP 95119423 A 19951209

Priority

US 36414894 A 19941227

Abstract (en)

[origin: EP0721112A2] An antireflectance coating is disclosed comprising a first graded layer wherein the composition is varied throughout the thickness of the layer such that the refractive index of the graded layer varies from a low refractive index approximately matching the refractive index of the substrate at the interface of the graded layer and the substrate to a higher refractive index at the surface of the graded layer opposite the interface with the substrate, and a second substantially homogeneous layer of a composition selected to have a refractive index which is approximately the square root of the product of the higher refractive index of the graded layer and the refractive index of the incident medium at the surface of the second layer opposite the interface of the second layer with the graded layer, having an optical thickness of approximately at least one quarter of a selected design wavelength. The antireflectance properties of the coating of the present invention can be expanded to a broader range of reflected wavelengths by incorporating, between the graded layer and the second substantially homogeneous layer, an intermediate layer having a relatively high refractive index and an optical thickness of about half the design wavelength.

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IPC 8 full level

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Citation (search report)

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